

Applicant's amendment dated August 24, 2009, has been fully considered.

Applicant amended his claims to include a "triple blade roots blower" and argued the applied references do not disclose that limitation. The Examiner agrees but a new ground of rejection has been made based on a newly discovered reference from further searches.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-27, 35-40, are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0172654 (Lawheed) in view of US 4429661 (McClure). Lawheed discloses an engine 42 with rotors 100 forming a roots blower with double lobes in figure 6, an evaporator 26, and a condenser 46. Lawheed does not disclose a triple lobes rotor. McClure discloses it's well known to use triple-blades roots blower 60, 140, in a heat power plant with an evaporator 120. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use triple blade roots blower in the system of Lawheed as taught by McClure for the purpose of improving the flow rates by the triple blades rotor.

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Claims 28-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0172654 (Lawheed) in view of McClure and WO 85/02881 (Lipovetz et al). Lawheed as modified by McClure discloses all the claimed subject matter as set forth above in the rejection of claim 21, but does not disclose absorbent step. Lipovetz et al is relied upon to disclose it's well known in a closed cycle system to have an engine 3 with expansion step, then after expansion, a component of the working substance is absorbed using an absorption agent (note page 7, lines 20-30). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide an absorption agent in the system of Lawheed as taught by Lipovetz et al for the purpose of achieving appropriate temperature as claimed.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hoang M Nguyen/
Primary Examiner, Art Unit 3748

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PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
11/3/2009